MISSILE DEFENSE AGENCY
MDA*facts*
Making Ballistic Missile Defense A Reality...

Block 2004 Development

The Missile Defense Agency (MDA) continues to pursue a robust research, development, test and evaluation program. We are working to put defenses into the field in two-year blocks, with successive blocks more capable than earlier ones. Once tested, elements and components are available for limited procurement, transition to production or for initial defensive operations as directed. These "off-ramps" may occur at any time during the Block Cycle to support timely execution of transition or fielding decisions. This allows missile defense capabilities to get into the hands of our customer, the warfighter, at a faster rate than would otherwise be possible, while MDA continues future development.

Block 2004 continues development and integration of components and facilities in the Ballistic Missile Defense System Test Bed to demonstrate layered missile defense capabilities against all ranges of threat. The capability that had been planned for the BMDS Test Bed will be augmented to reach up to 20 additional ground-based interceptors at Fort Greely, Alaska, and Vandenberg AFB, Calif., up to 20 additional sea-based interceptors based on three Aegis cruisers, additional upgraded early warning radars, and approximately 15 Aegis destroyers with an improved SPY radar for surveillance and tracking capability. This initial capability will add to defense capabilities provided by the PATRIOT PAC-3 system currently being fielded.

During Block 2004, major capability demonstrations, integration tests, and experiments are planned. The products and findings of these activities not only add robustness and confidence for the initial Block 2004 capabilities, but also serve to refine designs, improve capabilities, and establish confidence for subsequent Block developments and fielding opportunities.

Boost Phase – Activities include Airborne Laser (ABL) aircraft ground testing, the first flight of the complete ABL Block 2004 weapons system, a successful track and high-energy laser engagement of a target.

Midcourse Phase – The Sea-Based X-Band Radar on a moving floating platform will be introduced into the BMDS Test Bed to increase test capacity and realism against long-range targets and countermeasures.

Terminal Phase – Theater High Altitude Area Defense (THAAD) radar and missile flight tests against short and medium range threats are planned.

Sensors – Continued experiments with extant sensor systems (e.g. THAAD Radar, and ABL Infrared Search and Track) in broad-based BMD applications and scenarios are expected.

BMDS Products – Command and Control (C2) demonstrations of situational awareness, battle management, track correlation, and execution of preplanned responses will demonstrate communications among C2 nodes, Battle Management nodes, and weapons and sensor systems. Project Hercules-developed advanced target detection and tracking algorithm products will be developed.

Test and Targets – Several system exercises and tests will be supported, including two major system integration flight tests, the first of these will be a large-scale integration event, and testing Command, Control, Battle Management communications during flight tests.